

Install a Rainwater Tank

- Easy to follow step-by-step guide
- Important and handy tips
- Materials check list
- Project cost estimator



Before you begin your exciting new project, please read through this entire pamphlet carefully and estimate and assemble all the materials you will need for the project and gather your tools and equipment together. Refer to the checklist and estimating form on the back panel of the pamphlet to assist in this preparation. If you require any help, please don't hesitate to speak with one of Colli's experienced trade team.

Project Cost Estimator

Materials Description	Quantity	Cost
Rainwater Tank		
Rain Head		
PVC Pipes		
PVC Bends/Connectors		
First Flush System		
Pump		
Ball Cock Tap		
PVC Adhesives		
Gutterguard Mesh		
Equipment		
Rake & Shovel		
Adjustable Wrench		
Drill/Driver		
Spirit Level		
Total		

All the materials you need for this job are available at Colli, your DIY specialist.

Disclaimer: Please note that this brochure is designed as a guide only - if you have any queries, please consult one of our Colli Team Members for further assistance. The information provided in this brochure is done so on the understanding that Colli Timber and Hardware is not liable for any loss or damage which is suffered or incurred, for any personal injury or property damage as a result of using the information contained in the Colli DIY Projects brochure. Colli Timber and Hardware advises you to call in a qualified tradesperson, such as an electrician or plumber, where expert advice and services are required.

Note: Please ensure you comply with local council laws or regulations before undertaking any DIY project.

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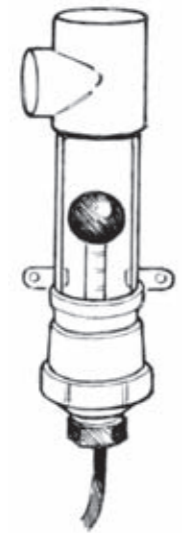
Install a first flush diverter

The simplest way to ensure dirt or sediment from the roof does not go into the tank as the first rush of water is collected during a rain storm, is to install a first flush diverter.

This diverter is fitted between the rain head and the tank in a convenient location using supplied PVC fittings. As the first rains wash off the roof, the diverter fills up instead of going straight to the tank. The water is then automatically released over time through a slow-release valve and can even be easily connected to a drip hose to irrigate a nearby garden bed.

All Colli stores stock various size diverters to suit single or multiple downpipe flows. Once the diverter is installed simply connect the tank inlet to the downpipe and your rainwater harvesting system is ready to go.

Cutaway view of diverter

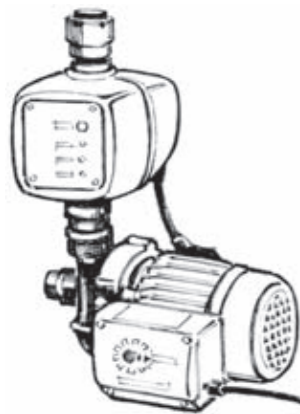


The ball rises as water enters, sealing the diverter once it reaches the top

Connecting a garden pump

Once you have started to collect rainwater, you will find that your tank will provide best value if you regularly use the water, ensuring that there is always room to catch the next rainstorm.

You'll find it easy to connect a garden pump with some flexible hose and fittings, but you will need to ensure that the power cord is protected and uses a weatherproof external power outlet. (A licensed electrician must be used to connect power outlets.)



Colli stock a range of garden pumps that automatically switch on and off as you operate the trigger nozzle on your hose. We can also provide pump covers to protect your garden pump from the elements.

Maintaining your system

Here are some simple tips for keeping your rain harvesting system in top condition.

- Check your roof and gutters regularly to remove leaves and debris
- Clear overhanging trees and shrubs from the roof every year
- Check the inlet and overflow screens on your tank for damage
- Check the rain head screens for damage at least annually
- Every couple of years, drain and clean your tank to remove sludge build up

Alternative tanks

If you have limited space, consider using an undereave tank system that can fit neatly into a confined space at the side of the house or garage.

An under-deck tank will save space if you are adding a deck, of course this type of tank must be installed when the deck is under construction.

If space is at a premium or if you have major building works in mind, consider an underground tank. Installed during the initial construction stages, underground tanks can be placed under driveways or paved areas. Poly tanks are available in a range of colours and sizes from 330 litres to 45,000 litres. Colli can arrange special ordering of all types of water tanks. Chat to our friendly staff about your water harvesting needs.

DIY Rainwater Tanks made easy

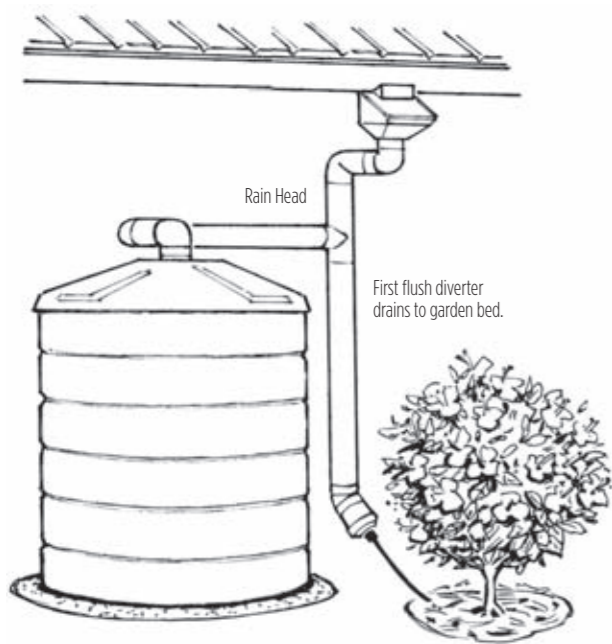
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You can install a rainwater tank

Common poly tanks

Regular rainwater tanks are normally made from galvanised steel, concrete or polyethylene (plastic). Colli stock a wide range of poly tanks that are ideal for most applications ranging from large rural sizes through to under-eave tanks for the more modest urban backyard.

This DIY brochure provides advice and instructions on installing the most common type of rainwater tank – the round poly tank. Please note that if you wish to connect your tank to internal plumbing such as a washing machine or toilet cistern, you will need to have the work performed by a licensed plumber.



A typical rainwater tank installation

Tank and site selection

With the wide range of tanks sizes available, you must take into consideration how you intend to use the collected water when making your selection.

For example, if you wish to use the water for outdoor gardens and washing the car, a 2,000 litre tank would be adequate. However, if you intend connecting the tank to the household plumbing for toilet flushing or use in a washing machine, the minimum size recommended in urban areas is 5,000 litres. Colli's team of professionals will be happy to assist and guide you in making the perfect choice to suit your requirements.

When selecting a site for your new tank, aim to place it on the southern side of the building as this will limit the amount of direct sunlight. Also, try to choose a site that is near an existing downpipe to make connecting the tank easier.

Preparing the site is simple, you will only need to level the area and ensure that no sharp rocks or projections remain near the surface immediately under the tank. Once level, lay a 50mm thick bed of sand to ensure that the tank settles in and the risk of rocks is decreased.

Clear surface debris



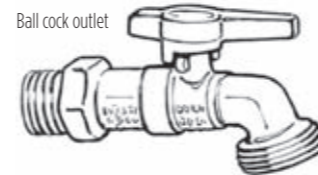
Level sand bed



Alternatively, smaller tanks may be mounted on a tank stand and you'll be pleased to hear that Colli can special order tank stands to suit a wide range of poly tanks sizes. A tank stand is beneficial in that it gives extra height for the outlet tap, providing higher water flow pressure and also allows for some garden storage space underneath.



Typical tank stand



Get help to maneuver the tank into position, ensuring the outlet is in a convenient location and we recommend that you use a ball cock outlet tap so that you do not have the worry of replacing a worn tap washer.

When fitting the outlet tap, remember that thread tape will help ensure a good seal. You are now ready to connect to the guttering.

Roof and guttering

Check the condition of your roof surface and guttering before connecting the tank and replace any damaged roofing material. Also, remember to check the gutters for damage and clean out any leaves or debris to ensure maximum water flow to your tank.

You may want to consider installing a good quality gutter guard system, to reduce the amount of leaves entering the gutters. Colli stocks a huge number of different products to suit most guttering types, and we recommend that for long term protection, you consider metal gutter guards.



Now is the time to decide if you wish to connect more than one downpipe to the tank. The average sized house will normally have three or four downpipes, and in most cases, chances are that at least two of these will be close enough to your tank location to be easily connected.

Essentially, each downpipe you connect will require a rain head and the first flush diverter will need to be sized appropriately to handle the total water flow. Some suitable lengths of PVC pipe and fittings for bends will allow connection to the tank.

Remember to allow for a sloping run of PVC pipe when planning the connection to the tank to ensure that the rainwater drains quickly from the guttering. When in store, remember to check the expansive range of PVC pipe fittings that are available at Colli when planning your connection.

Install a rain head

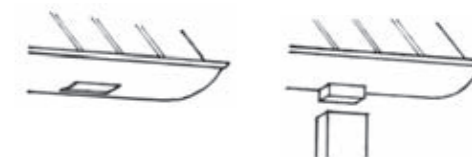
A rain head removes leaves and debris from rainwater as it drains from the guttering. The design of the rain head is simple – a self-cleaning primary screen of 6mm mesh keeps out leaves and debris as the water falls from the gutter outlet. A secondary screen inside the rain head (less than 1mm mesh) filters the water and ensures that mosquitoes, other insects and vermin are kept out of the tank.



Rain head

To install a rain head:

- Remove the downpipe and outlet from the guttering.
- Fit the supplied outlet by cutting a new hole and fixing with pop rivets.



- Now screw the rain head body to the fascia and insert the mesh filters in their respective holders. Attach a PVC downpipe to the rain head and utilize a suitable sized adapter if it is required. Do not glue this joint, instead, fasten with screws for easy and convenient removal.

